NONPOINT SOURCE PROGRAM MANAGEMENT

There are programmatic responsibilities that are essential to the success of the TDA-NPS Program and the management of its grant projects. These responsibilities are partnership development, program and project management, and data management. The following sections describe how the TDA-NPS Program will fulfill these responsibilities.

PARTNERSHIP DEVELOPMENT

Because the 319 Program is a grant program, its success is dependent upon public and non-profit agencies and organizations entering into contracts to complete projects which help meet the established milestones of the program. The identification of all potential partners is of critical importance to the TDA-NPS Program.

The TDA-NPS Program relies on two types of partners to meet the milestones of the program. The most important of these is the general public. Without its consent, very few BMPs are ever implemented. Yet, the general public can not be convinced to participate in the implementation of BMPs without the outreach capabilities of agencies and organizations.

Staff members of these agencies and organizations provide the materials read by the landowner, operator, and citizen, while they possess the personal skills to relate to these individuals as they inform them of the necessities for action. These agencies and organizations also possess the capabilities of providing the design and implementation of the BMPs, the generation of educational materials, and the collection and analyses of water quality samples.

The TDA-NPS Program acquires these cooperating partners through several different methods, one of which is the Tennessee Nonpoint Source Partnership. This group is comprised of more than eight hundred citizens and professionals. This large group of individuals will meet annually at the TDA-NPS Program Partnership Conference to learn through presentations and discussions of relevant water quality issues. The partners have an opportunity to express what efforts need to be done, what they can do to accomplish these tasks, and what the TDA-NPS Program can do to assist. Water quality partnerships and projects will also be formed. The TDA-NPS Program intends to retain this annual event for the duration of 319 funding.

As components of this large group, there will be working groups for each of the following categories:

- Agriculture
- Silviculture
- Resource Extraction
- Land Disposal
- Water Quality Monitoring
- Ground water
- Urban Runoff
- Construction
- Hydrologic Modification
- Education

Regular meetings of these working groups will provide for exchange of information and ideas as well as encourage partnerships between agencies, organizations, and the general public. It is the intent of TDA-NPS Program to host these meetings semi-annually.

On occasion, the TDA-NPS Program will arrange meetings with specific agencies to promote partnerships. This has been done with TDEC-Division of Community Assistance in an effort to direct State Revolving Funds towards nonpoint source issues, and with the Tennessee Valley Authority as TDA-NPS Program staff met with members of its Watershed Management Teams.

Through partnerships, the TDA-NPS Program has the opportunity to fund statewide and watershed focused educational and BMP implementation projects. All BMP implementation projects will be required to incorporate public awareness components, where practical. Outreach projects, including videos, CD-ROMs, posters, and brochures, the TDA web site, outdoor classrooms, Instream Education, Water Education for Tennessee Teachers and others, will help establish more partners among Tennesseans. The TDA-NPS Program will also attend many watershed technical team meetings where local citizens and professionals meet to exchange information and ideas as well as establish nonpoint source projects.

Participation in partner meetings such as the Tennessee RC&D Council, Tennessee Association of Conservation Districts, Keep Tennessee Beautiful annual meetings, and TDEC watershed meetings will also provide the TDA-NPS Program opportunities to generate projects. Attendance and participation in professional meetings such as the Tennessee Water Resources Symposium, and the Kentucky-Tennessee Water Environment Association Annual Conference and will also help generate projects and partnerships.

MILESTONES

Long Term Goal 1.

Hold regularly scheduled meetings with stakeholders, to create new partnerships, strengthen existing partnerships and to foster greater trust, commitment and accountability.

- **Action 1**: A revised NPS Program brochure will be generated and sent to every citizens group.
  Lead: TDA-NPS Program
  Key Partners: TDEC-WPC, USDA-NRCS, TVA, UTIA, TNC, TNRC&D, SCDs, local governments
  Year: 2005

- **Action 2**: Assist in the creation of one additional citizen-led watershed group annually
  Lead: TDA-NPS Program
  Key Partners: TDEC-WPC, USDA-NRCS, TVA, UTIA, TNC, TNRC&D, SCDs,

local governments
Years: 2001-2005

- **Action 3**: TDA-NPS Program staff will attend five statewide and regional organizational meetings annually, to build partnerships.
  Lead: TDA-NPS Program
  Key Partners: TDEC, USDA-NRCS, TVA, UTIA, TNC, TNRC&D, SCDs, local governments, citizen groups
  Year: 2001-2005

- **Action 4**: Sponsor the Tennessee Nonpoint Source Partnership Conference annually
  Lead: TDA-NPS Program
  Key Partners: TDEC, USDA-NRCS, TVA, UTIA, TNC, TNRC&D, SCDs, local governments, citizen groups
  Years: 2001-2005

- **Action 5**: Increase the attendance of potential partners at the Tennessee Nonpoint Source Partnership Conference annually
  Lead: TDA-NPS Program
  Key Partners: TDEC, USDA-NRCS, TVA, UTIA, TNC, TNRC&D, SCDs, local governments, citizen groups
  Years: 2001-2005

- **Action 6**: At each yearly partnership conference, present the status of the Tennessee Nonpoint Source Program with discussion of water quality success stories in the state along with how the program is accomplishing its management program goals.
  Lead: TDA-NPS Program
  Years: 2001-2005

- **Action 7**: At each working group meeting, discuss the goals and action plans of each appropriate section of management program and revise as needed.
  Lead: TDA-NPS Program
  Years: 2001-2005

- **Action 8**: Incorporate a feed back section on the NPS web site.
  Lead: TDA-NPS Program
  Years: 2001-2005

PROGRAM AND PROJECT MANAGEMENT

The TDA-NPS Program addresses nonpoint source water pollution from three aspects. These include education and public awareness, BMP implementation, and water quality monitoring. The following text briefly explains these aspects:

- Education and public awareness will be funded within the base grant.

- The grant pool project of the base grant will be funded annually in an effort to improve the water quality of small, agriculturally dominated watersheds, listed on the 1998 303(d) List.
- The Unified Watershed Assessment projects of the incremental grant will be funded in an effort to improve water quality of eight digit watersheds regardless of pollutant sources, in accordance with a Watershed Restoration Action Strategy, and approved by EPA.
- BMP implementation designed to demonstrate innovative technologies in geographic areas where these technologies are unknown, will be funded in the contractual portion of the base grant.
- Water quality monitoring will be funded in the contractual portion of the base grant as well as in the incremental grant.

Keeping the TDA-NPS Program provisions of the 1987 Reauthorization of the Clean Water Act in mind when promoting new directions among the cooperating partners is critical. The TDA-NPS Program must be certain that these provisions are being achieved while also making certain that it is not in conflict with existing programs, especially those regulatory in nature. This will require routine communication with EPA. There are several means to achieve this, which are:

- Being familiar with the annual EPA/NPS guidance
- Attending the regional program managers/coordinators meeting where these topics are discussed
- Attending periodic workshops and conferences that have a direct bearing on the success of the program

The TDA-NPS Program will send staff to these meetings on a regular basis.

Once a 319 proposal has been incorporated into an annual work plan and that grant has been awarded, the TDA-NPS Program will send the state contract to the grantee for signature. Once the grantee and the commissioner of TDA sign the contract and the proper processing has occurred, the state contract will be official. The grantee is then bound to the letter of the contract and work plan. Because the state contract is a tool used to ensure the completion of a grant agreement between the state of Tennessee and the United States government, the TDA-NPS Program will ensure that all work delineated in the original work plan is performed. The following listed below will be followed:

The contractor will be required to submit quarterly Expense and Progress Reports accompanied by invoices to indicate the amount of 319 funding they need to receive as reimbursement for services rendered. Contractors will be required to provide statements indicating how the actions of these expenditures satisfy their project milestones. Reimbursement requests will be reviewed to determine if costs submitted are allowable, and if the matching percentages are correct. Pertinent BMP information accompanying this material will be entered into the GIS database.

As the 319 and matching funds are spent, the TDA-NPS Program will track the remaining balance as well as submit milestone accomplishments to EPA via the national Grants Recording Tracking Systems (GRTS). The TDA-NPS Program

will submit to EPA an annual report detailing the accomplishments of the contracted projects and those of leading cooperating partners. Progress made by contractors will be reported on TDA's web site and in EPA's quarterly newsletter as success stories.

Once the project has ended, the contractor will be required, within 45 days of the completion date, to submit a final/closeout report. This report will summarize all that has been accomplished within the project/contract, how it benefited water quality, and what lessons have been learned. After this report is reviewed by TDA-NPS Program, it will be submitted to EPA along with the other project closeout reports included in that grant. Once the final/closeout report has been approved, the project is completed.
The state will submit semi-annual progress reports via GRTS, by April 30 and October 31 of each year and will submit annual report by September 1 of each fiscal year. When a grant has expired, the state will submit final closeout report within 90 days.

MILESTONES

Long Term Goal 6.

Through the process of continuous improvement, routinely assess all programmatic functions of the TDA-NPS Program in order to maximize efficiency, decrease the bureaucratic burden and increase the numbers of participants in the program.

- **Action 1**: Attend the Region 4 Nonpoint Source Coordinators Meeting annually.
  Lead: TDA-NPS Program
  Years: 2001-2005

- **Action 2**: Reduce the time between grant award and contract execution to 60 days, at a maximum.
  Lead: TDA-NPS Program
  Years: 2002

- **Action 3**: Develop a revised Request for Proposal Form, including comprehensive instructions, and make both available on the TDA web page.
  Lead: TDA-NPS Program
  Years: 2001

- **Action 4**: Develop an integrated database management system for the TDA-NPS Program, integrating GRTS and GIS, if feasible.
  Lead: TDA-NPS Program, TDA-Information Systems
  Years: 2001

- **Action 5**: Submit the Annual Report to EPA by October 1st, each year.
  Lead: TDA-NPS Program

Years: 2001-2005

- **Action 6**: Submit semi-annual reports to EPA by April 30 and October 31 each year through GRTS.
  Lead: TDA-NPS Program
  Years: 2001-2005

- **Action 7**: Submit final closeout reports to EPA within 90 days of termination of a grant.
  Lead: TDA-NPS Program
  Years: 2001-2005

- **Action 8**: Submit the base and incremental workplans to EPA by July 1st annually.
  Lead: TDA-NPS Program
  Years: 2001-2005

- **Action 10**: Create and hold a workshop for potential nonpoint source project partners.
  Lead: TDA-NPS Program
  Years: 2002

- **Action 11**: Eliminate items of concern from the Annual and Mid-Year EPA Reviews for the TDA-NPS Program.
  Lead: TDA-NPS Program
  Years: 2002

GIS DATA MANAGEMENT

INTRODUCTION

Geographic Information System (GIS) is a tool used by the TDA-NPS Program for the tracking of water quality related efforts as well as the projection of needed efforts of this kind. The TDA-NPS Program has used GIS to a limited extent for the tracking of implemented BMPs as well as monitoring sites in priority watersheds where several funding agencies have been present.

The TDA-NPS Program GIS will be used for both storage and presentation of land use, BMP implementation, water quality, project, and new technology data/information. Because of the potential of GIS and its ability to produce useful coverage maps, the TDA-NPS Program plans to significantly increase the use of GIS.

The production of visual aids, including but not limited to maps, charts, graphs, etc., will provide an excellent means of tracking project progress and water quality improvements, while planning needed projects through land use delineation. Use of these tools will benefit the TDA-NPS Program and all cooperating partners, and will make all partnerships more efficient.

DESCRIPTION

The tracking of land use within a targeted watershed will provide the TDA-NPS Program and its partners with necessary information related to the BMP selection and planning of watershed restoration projects. With the advent of low altitude infrared imaging, TVA and others have been able to produce extremely useful and accurate presentations of how the land is being used throughout an entire watershed. Similar types of land use information are also being acquired by agencies through on the ground reconnaissance.

These types of information, once stored in a GIS format, will benefit the TDA-NPS Program and its partners. Combining this targeted watershed information with local water quality data will provide the TDA-NPS Program and its partners with information critical to the selection of BMP placement within any targeted watershed.

Regional and statewide land use maps and presentations will also serve as means of targeting 319 Program and cooperating partner funds towards specific watershed projects. Information generated with GIS will also assist in the watershed coordination of UWA and 'grant pool' projects and NRCS funded EQIP projects.

The TDA-NPS Program GIS system will track all BMPs implemented with 319 and Ag Resources Conservation funds. Other partners will also have the opportunity of submitting their BMP information to ensure all activities are tracked and no duplication of effort occurs between agencies. The maps generated with GIS will be useful for local agencies as tools to show other interested landowners the extent of the work that has been accomplished in a particular area.

Collecting and Entering BMP Information

All TDA implemented BMPs will have their pertinent information, including implemented BMP type(s), funding source(s), completion date, and location coordinates, recorded on a standard form. The TDA-NPS Program GIS Coordinator enters the information into the database.

Tracking of Nonpoint Source Water Quality

The GIS will be used for the storage and presentation of surface and subsurface water quality data generated by such cooperating water quality agencies as TDA-Regulatory Services, TDEC-WPC, TDEC-DWS, TWRA, TVA, and USGS. These data will be displayed as statewide, regional, or watershed-specific presentations, while being used to assist in the selection of targeted 'grant pool' and UWA watersheds and targeting subwatersheds within a targeted watershed for BMP implementation. By tracking pertinent water quality parameters at any sampling site downstream of implemented BMPs, the TDA-NPS Program and its cooperating partners will determine whether or not these projects are improving the water quality. These data will also be used by TDA-NPS Program in their TMDL implementation efforts.

Tracking the Re-definition of the 303(d) List

As TDEC-WPC continues its nonpoint source monitoring in each of the watersheds delineated by the Watershed Management Program, its water quality database for nonpoint source areas will continue to grow in amount and coverage area. TDEC's capability to track and present these data has progressed to the point that it can create maps that designate impacted 11- and 14-digit subwatersheds. This type of GIS information will be indispensable to the TDA-NPS Program 'grant pool' and UWA watershed selection processes and should prove to be as valuable in the TMDL development and implementation efforts.

Tracking of Project Types

The TDA-NPS Program will also use GIS to track the locations and types of BMP implementation, education/public awareness projects, and watershed and monitoring projects on a statewide basis. By plotting all of the 319 funded projects, as well as those of the cooperating partners, the TDA-NPS Program will have an excellent programmatic planning tool to share with its partners. Statewide maps will indicate the geographic distribution of nonpoint source category efforts.

Tracking of New Technologies

Progress being made by the TDA-NPS Program and its cooperating partners towards introducing new technologies for septage disposal, construction, urban runoff, stream bank stabilization, abandoned mine lands, among a wide array of other water quality efforts will be tracked geographically on GIS-generated maps. These maps will provide a better understanding of the progress being made as well as what still remains to be addressed in the nps arena.

MILESTONES

Long Term Goal 3.

Restore all waters impaired by nonpoint sources that are listed on the 1998 303(d) List to the condition of fully supporting their designated uses by 2015, in cooperation with local, state and federal partners.

- **Action 1**: Continue to track installed BMPs on GIS system.
  Lead Agency: TDA-NPS Program
  Key Partners: TDEC-WPC; TN-OIR; USDA-NRCS; TDA-Forestry Division,
  Years: 2000-2005

Long Term Goal 5.

Improve the knowledge of stakeholders and citizens concerning the origins, magnitude, and prevention of nonpoint source pollution.

- **Action 1**: Develop GIS inventories of nonpoint source areas of concern for each nonpoint source category.
  Lead: TDA-NPS Program
  Key Partners: TDEC-WPC; TN-OIR; USDA-NRCS; TDA-Forestry Division
  Years: 2003-2005

- **Action 2**: Use GIS coverages to contact all landowners in 303(d) listed watersheds impaired by nonpoint sources.
  Lead: TDA-NPS Program
  Key Partners: TDEC-WPC; TN-OIR; USDA-NRCS; TDA-Forestry Division
  Years: By 2003-2005

- **Action 3**: Produce county maps for use as a planning tool by TDA Regional Administrators.
  Lead: TDA-NPS Program
  Key Partners: TDEC-WPC; TN-OIR; USDA-NRCS; TDA-Forestry Division
  Year: By 2001-2005

Long Term Goal 6.

Through the process of continuous improvement, routinely assess all programmatic functions of the TDA-NPS Program in order to maximize efficiency, decrease the bureaucratic burden, and increase the numbers of participants in the program.

- **Action 1**: Establish the use of GIS for tracking problems at the county level, so that all ground water problems will be candidates for remediation efforts.
  Lead: TDA-NPS Program
  Key partners: County governments; Local landowners; Local SCDs; Local water suppliers; Local watershed assn; TDEC-DCA; TDEC-DWS; TDEC-GWP; TDEC-WPC; TVA; UTIA; UT-CTAS; Universities
  Year(s): 2000-2005

- **Action 2**: Assist counties in the implementation of such GIS efforts through the sponsorship of training sessions.
  Lead: TDA-NPS Program
  Key partners: County government; Local landowners; Local SCDs; Local water suppliers; Local watershed assn; TDEC-DCA; TDEC-DWS; TDEC-GWP; TDEC-WPC; TVA; UTIA; UT-CTAS; Universities
  Year(s): 2000-2005

- **Action 3**: Incorporate GIS maps into the Annual Report
  Lead: TDA-NPS Program
  Years: 2002